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**PACIFIC COAST FEDERATION  
of FISHERMEN'S ASSOCIATIONS**



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12 February 2010

Director Hydro Licensing, Power Generation  
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*Via e-mail (HEA@water.ca.gov)*

Chief, Division of Environmental Services  
Department of Water Resources  
P.O. Box 942836  
Sacramento, CA 94236

RE: Feather River/Lake Oroville Habitat Expansion Plan

Dear Sir(s) or Madam(s):

The Pacific Coast Federation of Fishermen's Associations (PCFFA) represents working men and women in the West Coast commercial fishing fleet, including California's organized salmon fishermen who depend on salmon production from the Central Valley rivers, including Feather River.

PCFFA respectfully submits these comments on the proposed measures on the draft Habitat Expansion Plan that was released in November, 2009.

**1. The proposed actions do not mitigate for the loss of the Feather River salmon and steelhead fisheries upstream of Lake Oroville.**

Yoshiyama et al. (2001) provide an historical narrative of the distribution of salmon in the Feather River:

*"Salmon originally ascended a considerable distance into the Feather River system, particularly the spring run which spawned in the higher streams and headwaters. They*

*went up the West Branch at least to the site of Stirling City (F. Meyer, personal communication, see "Notes"), and also up along the entire length of the North Fork Feather River through the area now covered by Lake Almanor and into the surrounding tributary streams (> 4,200 ft elev.)."*

Historically, the Feather River boasted one of the largest salmon and steelhead runs in California's Central Valley. The proposed actions, to either enhance habitat in the Yuba River downstream of a rim dam, or to enhance habitat in two small watersheds (Big Chico and Antelope Creeks) and in a somewhat larger watershed where millions of dollars have already been committed and a project is well underway, does not come close to doing justice to the loss of the upper Feather River anadromous salmonid fisheries.

Central Valley spring-run Chinook salmon and California Central Valley steelhead have been eliminated or nearly eliminated on several Central Valley rivers. Populations on the Feather River have been heavily impacted by dam construction, and require further protection to prevent losses and changes to their genome. The lack of fish passage has altered the genotype of Central Valley spring-run Chinook salmon due to hybridization with Central Valley fall-run Chinook salmon, and has likely caused alterations in California Central Valley steelhead.

Over 90% of the historic freshwater habitat for Central Valley salmonids has been blocked by Central Valley rim dams, of which Lake Oroville is the second largest. The reservoir is the storage linchpin of the State Water Project, which supplies water to locations four hundred miles away. The actions proposed in the draft HEP are inadequate to meet the 2-3,000 criteria, create any "new self sustaining populations or achieve the agreed upon bargain by providing the same or more habitat than NMF'S section 18 fishway prescription. The presumption that this can mitigate for blockage of the Feather River is deficient by orders of magnitude.

## **2. The proposed actions are not passage projects that will substantially increase the amount and diversity of habitat accessible to spring-run Chinook and Central Valley steelhead.**

In order to recover Central Valley salmon and steelhead, these species need to be re-established upstream of rim dams in every major watershed to which passage has been blocked. The Habitat Expansion Plan should support this approach.

The draft Habitat Expansion Plan is not consistent with NMFS VSP approach or the draft recovery plan. Because of this, it should be considered invalid.

Any action undertaken to mitigate the loss of the upper Feather River to anadromous fish absolutely must be a passage project past a major rim dam. If not a mitigation in place, it must at least be a mitigation in kind. A fish ladder on Big Chico Creek, as much as it is needed, is simply inappropriate in the context proposed.

## **3. Priority should be given to actions that provide passage to the Middle Fork of the Feather River and Upper Yuba Fish Passage over Englebright Dam.**

### Middle Fork

Middle Fork While some reasons have been provided for why hydropower projects on the North Fork Feather make a trap-and-haul program there problematic, we are unaware of good reasons

why a trap-and-haul program that would move fish to and from the Middle Fork Feather is not feasible. The presumption should be that this option, which could move fish to over 40 miles of wild and scenic habitat, should be selected unless definitive proof is made that it cannot work. In this regard, it is important to note that the Wild and Scenic River Act does not prohibit structures that are consistent with the values of the Act, such as the promotion of fisheries restoration.

Prioritizing the Middle Fork Feather also fits with the imperative of restoring fish upstream of all major rim dams. It is not simply a question of choosing the best place to start a stand-alone program. It is rather a question of starting at the best time, which is now, and then expanding the first effort throughout the Valley.

### Upper Yuba

The Yuba River is the fourth largest river in the Sacramento River Basin. The river provides water for agriculture, domestic use, hydroelectric power generation, and recreation. In addition, the Yuba River downstream from Englebright Dam (lower Yuba River) supports numerous species of fish including Chinook salmon and steelhead. Englebright Reservoir is located on the Yuba River about nine miles downstream of New Bullards Bar Reservoir and about 26 miles east of Marysville. The dam was completed by the California Debris Commission in 1941 as a debris barrier and is now under the jurisdiction of the U.S. Army Corps of Engineers. Englebright Dam impounds the waters of the upper Yuba Rivers (North, Middle and South Yuba rivers), creating Englebright Lake, which serves as the afterbay for New Colgate Powerhouse and the forebay for power generation at the Narrows 1 and Narrows 2 powerhouses.

The Yuba River watershed, composed of the lower mainstem river fed by its upper North, Middle, and South Fork branches and tributary streams, is identified as having historic habitat and populations of spring-run Chinook salmon, fall-run Chinook salmon and steelhead. Both spring-run Chinook salmon and steelhead historically migrated as far as they could into higher elevation habitats before reaching a passage impediment in the North, Middle and South Yuba rivers where they would hold, spawn and rear.

In the North Yuba, there are no apparent natural barriers upstream from New Bullards Bar Reservoir, so Chinook salmon were historically able to ascend a considerable distance. The historic upper limit of migration for spring-run Chinook, and possibly steelhead was about two miles upstream from the confluence with Salmon Creek (around RM 50) and their absolute upstream limit on the North Fork would have been Loves Falls (Yoshiyama et al. 2001). Deep pools are present throughout the North Fork Yuba River from its mouth up to Sierra City and likely provided prime holding habitat for spring-run Chinook salmon.

On the Middle Yuba, at about 0.4 miles upstream from the confluence with the North Yuba is a cascade totaling approximately 13 to 15 feet (Gast et al. 2005, and Vogel 2006 both in DWR 2007). This cascade is likely a partial barrier to anadromous fish passage at low flows, but may be passable by larger fish at higher flows (Gast et al. 2002/2005 in DWR 2007). In addition, there are apparently two (2) low-flow barriers (less than 200 cfs) that are located at RM 0.2 and RM 3.2 (Gast et al. 2005). These locations need additional evaluation by qualified fish passage engineer(s) and hydrologists to determine the exact extent and duration of fish passage impedance. Both Chinook salmon and steelhead were observed during a DFG survey in 1938 in the lower part of the Middle Yuba, near confluence with the North Yuba (DFG unpublished data

as cited in Yoshiyama et al. 2001). Steelhead were found as far upstream as the mouth of Bloody Run Creek (around RM 17.5) (DFG unpublished data as cited in Yoshiyama et al. 2001). Our House Dam, located at RM 12.7, was constructed in 1969 without fish passage facilities. At 75 feet high, this dam currently constitutes a complete barrier to fish passage, but could be easily retrofitted with fish passage facilities to provide substantial habitat gains in the middle fork.

The original distribution of Chinook salmon and steelhead in the South Yuba is uncertain. There are records of Chinook salmon within one to two miles upstream of the confluence with the South Yuba River (DFG unpublished data as cited in Yoshiyama et al. 2001). Two cascades with at least a 6-foot drop, located at RM 6.2 and at RM 20 (one-half mile below the juncture of Humbug Creek (Yoshiyama et al. 2001, Gast et al. 2005)), may have posed a significant obstruction to salmon migration in low flow conditions. Steelhead ascended the South Yuba as far as the juncture of Poorman Creek near the present town of Washington (DFG unpublished data as cited in Yoshiyama et al. 2001), and perhaps some spring-run Chinook salmon historically also reached that point.

The lower Yuba River currently sustains one of the few remaining natural (non-hatchery) Chinook salmon and steelhead populations in the Central Valley, although there is input of strays from the Feather River and other Central Valley hatcheries. There is a sustainable fall-run Chinook salmon population that is surveyed annually. It also has a sustainable Central Valley steelhead population, though the population size is relatively unknown due to the difficulty in quantifying steelhead population sizes. In addition, there is currently a small spring-run Chinook salmon population.

There are several field investigations and reports that vary in their identification of the upstream migration limits as well as descriptions of the natural barriers (Gast et al, 2005, Vogel 2006) current evidence indicates that well over 500 miles of historic salmon and steelhead habitat occur above Englebright Dam.

#### **4. The proposed actions do not meet the criteria of the HEA because they contemplate actions that should be undertaken as the result of other processes or actions.**

The Yuba actions as proposed in the draft HEP should be addressed under a Biological Opinion for the operation of Englebright and Daguerre Dams. PG&E and others are obligated to complete restoration of Battle Creek, which is also mandated by a Biological Opinion for the Operations and Criteria Plan of the State Water Project and Central Valley Project. As suggested by the November 10, 2009 letter from Steve Edmondson of the National Marine Fisheries Service to Ralph Torres and Randal Livingston, these proposed actions should not be considered eligible for inclusion in the Habitat Expansion Plan, and should be withdrawn from consideration in this context. Accepting these proposals would not provide any additional benefit to salmon and steelhead because the result would be to simply provide additional funds to existing mitigation requirements and on-going projects.

#### **5. The proposed actions do not meet the criteria of the numeric criteria of the HEA.**

The draft Habitat Expansion Plan relies on the Ecosystem Diagnostic Treatment (EDT) model to determine actual numbers of fish generated under the proposed actions. However, these estimates are utterly invalid. According to the consultants that developed and are now practitioners, of EDT, the EDT is a “wholly deterministic” model. Hence, confidence intervals or sensitivity analysis is irrelevant as the output of EDT does not represent numbers of fish or any other absolute value. The output provides a relative metric that can be compared to other model runs only. Accordingly, the estimates of fish numbers contained in the draft Habitat Expansion Plan are irrelevant and cannot be used as absolute values or estimates of fish numbers.

In closing, the proposed actions contained in the draft Habitat Expansion Plan do not meet the requirements of the HEA, do not deliver the “negotiated for bargain”, are inferior to the current fishway prescriptions and should not be accepted by NMFS. Alternatively, providing passage to either the Middle Fork Feather River, or Upper Yuba above Englebright Dam, would meet the intent and letter of the HEA and substantially contribute to the recovery of steelhead and spring-run Chinook salmon .

Thank you for the opportunity to comment on the draft Habitat Expansion Plan.

Sincerely,

W.F. “Zeke” Grader, Jr.  
Executive Director

cc: California Department of Fish & Game  
National Marine Fisheries Service